

METHOD AND APPARATUS FOR FORMULA EVALUATION IN  
SPREADSHEETS ON SMALL DEVICES

ABSTRACT

5           The present invention provides a method and apparatus for enabling a spreadsheet  
program with formula support on small devices (like PDAs) while minimizing the amount of  
memory space used by not only the program, but also by the accompanying compiled code  
during transfer of files from the desktop to the small devices. The present invention allows the  
user to download a spreadsheet file from the desktop to the small device via a conduit. A  
10       conduit is any 2-way communication device which connects a desktop to a small device and  
allows the transfer of data. Since the operating system of the desktop and small device, like a  
PDA, are different, the present invention allows the conduit software to convert the data to be  
transferred in a format understandable by the respective programs of both the desktop and PDA.  
The present invention also allows the conduit software to evaluate and parse the formulas and  
15       functions needed by the current file before the transfer. The present invention also allows the  
conduit software to generate compiled code for the functions needed by the current file before  
transfer. By letting the conduit software perform the tasks of evaluating and parsing the  
formulas, and generating compiled code, the present invention optimizes the limited amount of  
memory space that is so critical to a small device's operating speed and performance.